

## Essential Questions

(This section is reprinted from a series of articles first published in *Technology Connection* in 1995.)

As a teacher begins planning the school year for a course or the units of the year, he or she should consider the ESSENTIAL QUESTIONS which give meaning, relevance, and definition to the course and the unit.



### *What are essential questions?*

Essential questions have the following attributes:

- Essential questions reside at the top of Bloom's Taxonomy (Bloom, 1954). They require students to EVALUATE (make a thoughtful choice between options, with the choice based upon clearly stated criteria), to SYNTHESIZE (invent a new or different version) or to ANALYZE (develop a thorough and complex understanding through skillful questioning).
- Essential questions spark our curiosity and sense of wonder. They derive from some deep wish to understand some thing which matters to us.
- Answers to essential questions cannot be found. They must be invented. It is something like cooking a great meal. The researcher goes out on a shopping expedition for the raw ingredients, but "the proof is in the pudding." Students must construct their own answers and make their own meaning from the information they have gathered. They create insight.
- **Have no one obvious "right" answer:** essential "answers" are not self-evidently true. Even if there are "truths" and essential theories in a discipline, the student comes to know that there are other plausible theses and hypotheses to be considered and sorted through along with the "sanctioned" views.
- Answering such questions may take a life time, and even then, the answers may only be tentative ones. This kind of research, like good writing, should proceed over the course of several weeks, with much of the information gathering taking place outside of formally scheduled class hours.
- Essential questions engage students in the kinds of real life applied problem-solving suggested by nearly every new curriculum report or outline curriculum standards such as the NCTM and the Science Standards.
- Essential questions usually lend themselves well to multidisciplinary investigations, requiring that students apply the skills and perspectives of math and language arts while wrestling with content from social studies or science.
- **Go to the heart of a discipline.** They can be found in the most historically important (and controversial) problems and topics in the sciences: What is adequate "proof" in each field of inquiry? Is our society more advanced than those of the past?
- **Recur throughout one's learning.** The same important questions get asked and re-asked, if they are essential. Our answers to essential questions may never be adequate, but they should become increasingly sophisticated.
- **Are framed to provoke and sustain student interest.** Essential questions work best when the questions are edited to be thought-provoking to students, likely to generate interesting inquiries, and able to accommodate diverse interests and learning styles.
- **Link to other essential questions.** Good questions engender other good questions. It is therefore useful to think of a family of related questions as anchoring a course and a unit, and also to make clear to students that their questions that arise naturally are part of clarifying the essential questions.

It would be best if students could learn to frame their own essential questions, but in most cases they will require several experiences with teacher generated questions before they can shed years of practice with trivial information-gathering questions.

### ***What would ESSENTIAL QUESTIONS look like?***

For a world history COURSE, they might look like:

1. How do natural resources affect nations and potential conflict among them?
2. What differentiates one nation's identity from another?
3. How do wars shape alliances and contribute to national identities?
4. What role does technology play in the history of a people?
5. How do languages influence peoples and their nationalities?

For a world history UNIT on World War II, they might look like this:

1. How did treaties, alliances, and political structure contribute to World War II?
2. What are possibilities for the European outcome (and thus world outcome) had the United States not entered the war and why?
3. How and why does a nation decide to go to war? What if a significant faction objects to the war?
4. What are indicators that a war has ended? For example, in World War II, how did everyone know the war was over?
5. Could a war such as World War II occur again? How and why?

### ***Some other examples:***

- Must a story have a moral? A beginning, middle, and end? Heroes and villains?
- Did Gorbachev undermine or fulfill the promises of the Revolution?
- Is geometry more like map-making and using a map, or inventing and playing games like chess? Were theorems invented or discovered?
- Is history a history of progress?
- What makes a family a community?
- Do statistics always lie?
- Are some aspects of another language and culture not understandable by people from other cultures?
- Is gravity a fact or a theory? Is evolution a scientific law or a theory?
- In what ways are animals human, and in what way are humans animals?
- Do mathematical models conceal as much as they reveal?

(These other examples are from *Understanding by Design: Curriculum and Assessment*, pp. 34-35.)

Note that these questions guide the planning process. Essential questions for the course lead to UNITS which in turn lead to more essential questions for each unit. Those essential questions, then, lead to objectives for each respective unit.

### ***Why are essential questions important?***

1. They provide the teacher with a thoughtful approach to the course and to individual units.
2. They help the teacher get in his or her mind the usefulness, the relevance, and the greater benefit for a course or unit. (The "So What?" question)

3. The teacher plans using essential questions as a GUIDE to construct a hierarchy of knowledge. Not everything in a course, a unit, or a textbook is of equal weight. Some things are more important than others. (You can't teach everything! *Covering* material does not equal *LEARNING* material!)
4. They help answer students' questions such as, "*Why* do we have to learn this?"
5. They are thought-provoking to students and can be used to stimulate discussion, debate, dissent, and research. (They go beyond the knowledge level of learning. In fact, essential questions hover around the upper three levels or so of Bloom's Taxonomy.)
6. All learning ultimately begins and ends with a question!
7. They encourage *engaged learners*\*.

### **\*Characteristics of Engaged Learners**

#### **❖ Responsible for their own learning**

They invest personally in the quest for knowledge and understanding, in part because the questions or issues being investigated are drawn from their own curiosity about the world. Projects are pertinent and questions are essential.

#### **❖ Energized by learning**

They feel excited, intrigued and motivated to solve the puzzles, make new answers and reach insight. Their work feels both important and worthwhile.

#### **❖ Strategic**

They make thoughtful choices from a toolkit of strategies, considering carefully which approach, which source and which technique may work best to resolve a particular information challenge.

#### **❖ Collaborative**

They work with others in a coordinated, planful manner, splitting up the work according to a plan and sharing good ideas during the search for understanding.